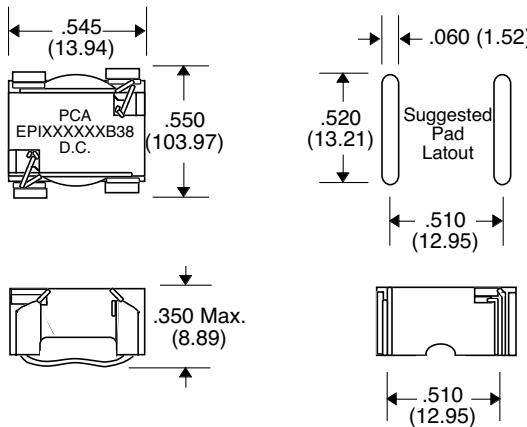
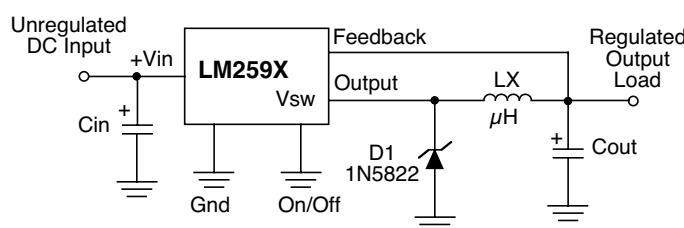


**EPI B38 Series**

- 150 KHz Switching Frequency for National's LM259X Series
- Low loss material ensures operation in high frequency switching converters, such as Buck, Boost or as output averaging filter inductor
- Also suitable for use in high quality filter applications
- 200 KHz & 500 KHz Switching Frequency
- Low Cost Inductor

**Primary Specification**

Part Number	National Semicon. Chip	Inductance ( $\mu$ H $\pm$ 15%) @ 0 Adc	DCR ( $\Omega$ Typ.)	Idc (Amps)	Inductance ( $\mu$ H $\pm$ 15%) @ Idc	Vt1 (V- $\mu$ sec) @ 200 KHz	Vt2 (V- $\mu$ sec) @ 500 KHz	Vt3 (V- $\mu$ sec) @ 150 KHz	Temp. Rise @ Vt1 $^{\circ}$ C (Typ.)	Temp. Rise @ Vt2 $^{\circ}$ C (Typ.)	Temp. Rise @ Vt3 $^{\circ}$ C (Typ.)
EPI1L1942B38	---	1.3	.004	9.4	1.1	2.3	1.0	---	40	40	---
EPI1L9802B38	---	2.3	.005	8.0	1.9	3.1	1.3	---	39	39	---
EPI3L0662B38	---	3.6	.006	6.6	3.0	3.9	1.6	---	35	35	---
EPI5L0502B38	---	6.0	.013	5.0	5.0	5.0	2.0	---	40	40	---
EPI6L6442B38	---	8.1	.020	4.4	6.6	5.8	2.3	---	37	37	---
EPI100342B38	---	11.6	.030	3.4	10.0	7.0	2.8	---	40	40	---
EPI120282B38	---	14.4	.042	2.8	12.0	7.8	3.1	---	40	40	---
EPI150262B38	LM259X-L25	17.4	.046	2.6	15.0	8.5	3.4	12.7	38	38	41
EPI180232B38	LM259X-L24	20.7	.062	2.3	18.0	9.3	3.7	---	39	39	---
EPI220182B38	LM259X-L24	24.0	.087	1.8	22.0	10.0	4.0	14.7	35	35	38
EPI270162B38	---	30.0	.097	1.6	27.0	11.3	4.5	---	32	32	---
EPI330142B38	LM259X-L23	37.0	.130	1.4	33.0	12.4	5.0	18	33	33	36
EPI390122B38	---	41.6	.174	1.2	39.0	13.3	5.3	---	32	32	---
EPI470112B38	LM259X-L22	52.0	.248	1.1	47.0	14.8	5.9	22	37	37	40
EPI560102B38	---	60.5	.268	1.0	56.0	16.0	6.4	---	34	34	---
EPI680102B38	LM259X-L21	76	.300	1.0	68.0	19.5	7.8	26	37	37	40
EPI2L8802B38	---	3.6	.0063	8.0	2.8	3.8	2.0	---	46	46	---
EPI4L9542B38	---	6.1	.0132	5.4	4.9	5.0	2.8	---	46	46	---
EPI170272B38	---	20.7	.050	2.7	17	9.0	5.2	---	43	43	---
EPI600132B38	---	69.7	.180	1.3	60	17	9.4	---	37	37	---
EPI101821B38	LM259X-L20	113	.365	.82	100	21.5	12	32	32	32	35
EPI151661B38	LM259X-L19	166	.560	.66	150	26	14.8	38.7	32	32	35
EPI201901B38	---	260	.434	.90	200	33	18.2	---	42	42	---
EPI221551B38	LM259X-L18	242	.836	.55	220	31.5	17.6	46.7	32	32	35
EPI331421B38	LM259X-L17	360	1.30	.42	330	38.5	21.6	56.7	30	30	33
EPI381721B38	---	518	.783	.72	380	46.5	26	---	46	46	---

**Package B38****Application****Notes :**

1. Core loss at ref. Vt 1 & VT 2 = 37 mW
2. Core loss at ref. Vt 3 = 67 mW
3. Inductance change at Idc: 20% Max.
4. Coplanarity within .005" Max.

**Note:** Coplanarity within .005" Max.

Unless Otherwise Specified Dimensions are in Inches /mm  $\pm .010 / .25$